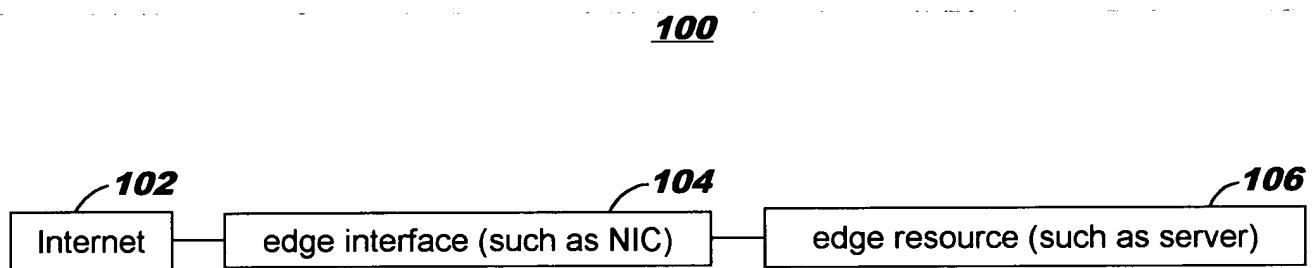


# FIG. 1



**FIG. 2**

**130**

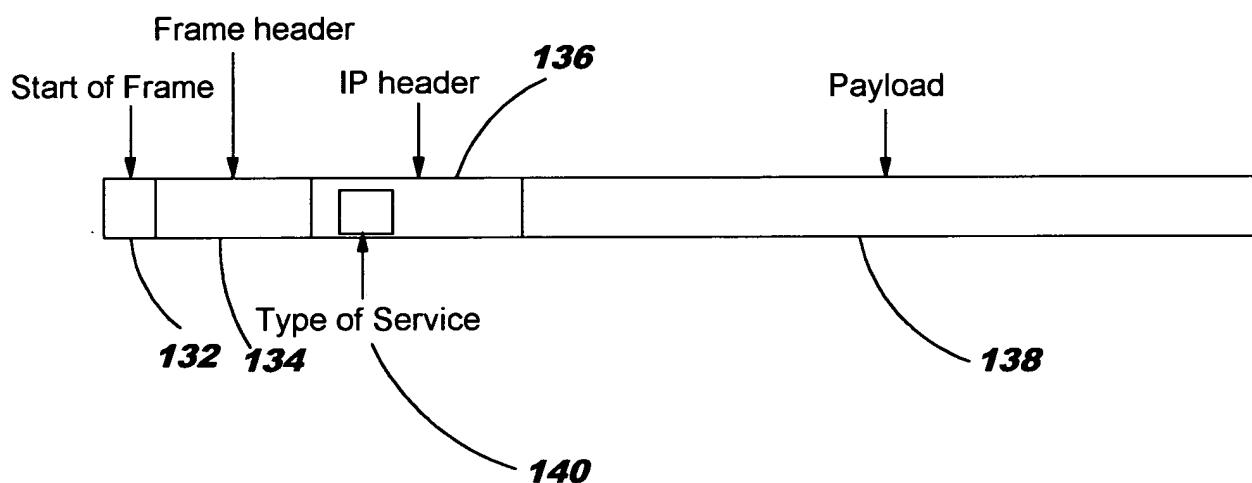
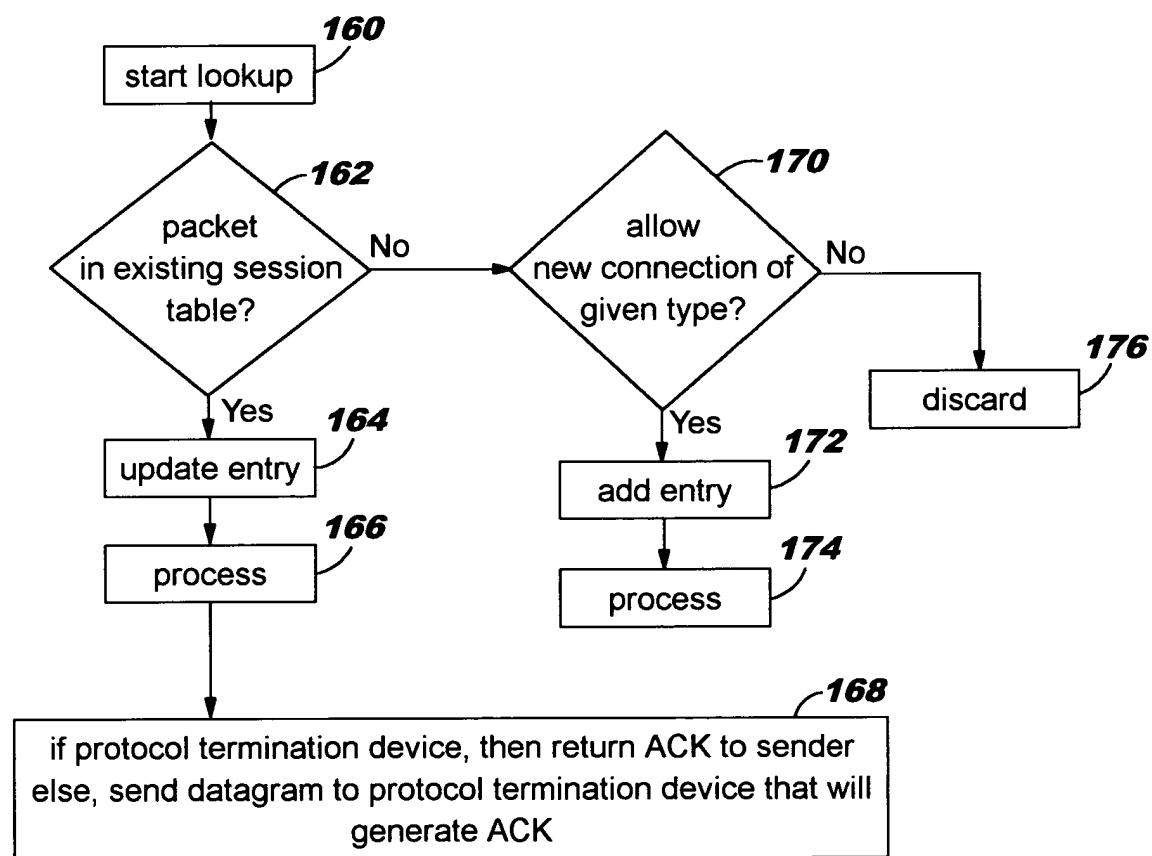
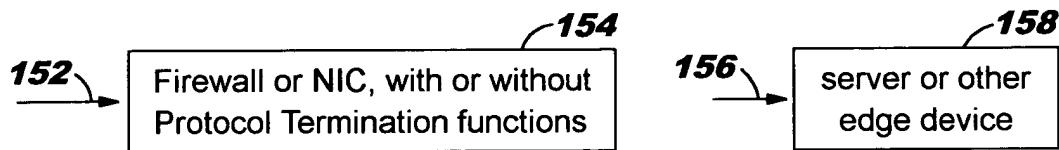


FIG. 3

150



## FIG. 4

### 200

#### **low speed**

Connection min and max values, pipe identifiers initialized in NIC

---

#### **moderate speed**

Current connection numbers and congestion signals collected and made available to algorithm

Algorithm refreshes probability of connection for different classes of service

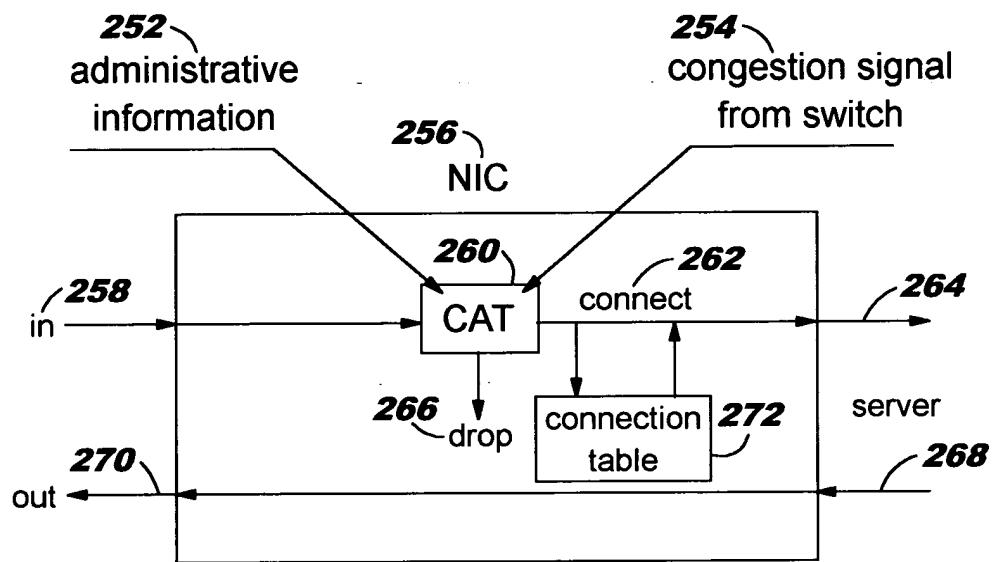
---

#### **high speed**

New sessions request connections and connection decisions made

FIG. 5

250



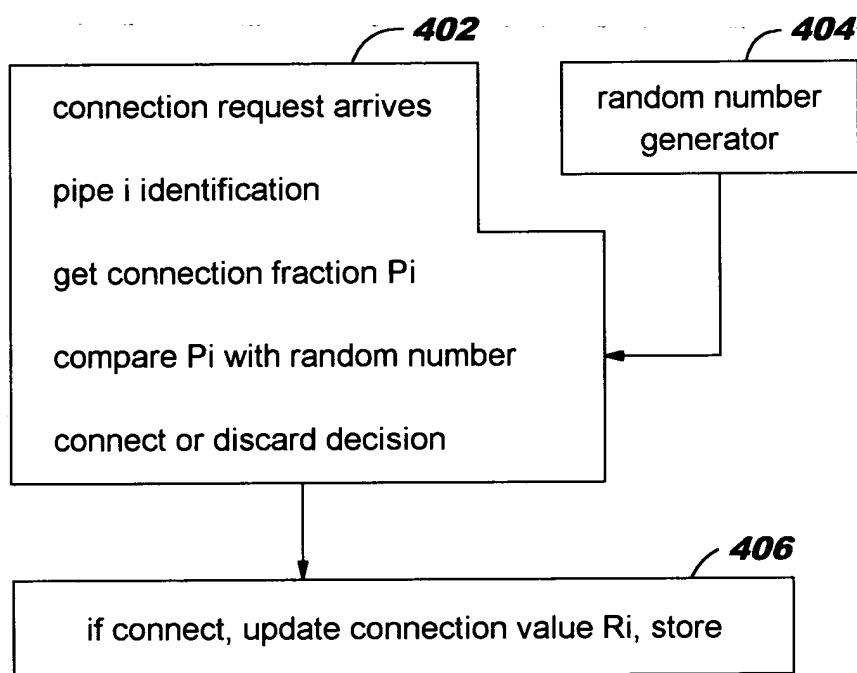
# FIG. 6

300

1. min and max numbers of connections declared by administrator
2. coordinates of paths of traffic classes declared
3. paths using a common NIC source port collected in a set
4. Ci and Di coefficients computed for each pipe
5. Ci and Di entered in registers used in CAT calculation
6. congestion signals defined using path coordinates and resource limits

FIG. 7

400



# FIG. 8

450

## NIC with CAT

### Update connection probability table

Timer awakens program with period Dt

Fetch B, E values from registers

Update E and store

Fetch Ri, Ci, Di, Pi values from registers

Update Pi for each i and store in table of Pi values

# FIG. 9

## 500

CAT connection control refreshes  
connection fractions  $P_i$  for pipes

Timer with period  $Dt$  awakens CAT.

New connection fractions computed per pipe.

Results stored in a table.

502

pipe number $i$	Connection fraction $P_i$

504 506